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(54) **SOURCE WAVEFORMS FOR
ELECTROSEISMIC EXPLORATION**

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G01V 1/40**

(52) U.S. Cl. **367/38; 324/323; 181/106**

(58) Field of Search **367/38, 40, 191;
324/323, 334, 354; 181/102, 106, 108**

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(57) **ABSTRACT**

A method for seismic exploration using conversions
between electromagnetic and seismic energy, with particular
attention to the electromagnetic source waveform used.
According to the invention, source waveforms are correlated
with reference waveforms selected to minimize correlation
side lobes. Line power at 60 Hz may be used to provide a
waveform element which may be sequenced by a binary
code to generate an extended source waveform segment with
minimal correlation side lobes. Preferred binary codes
include Golay complementary pairs and maximal length
shift-register sequences.

20 Claims, 5 Drawing Sheets

